

CLAIMS

- 1/ Transmission apparatus comprising a first relay receiving data messages formatted in a first protocol from a transmitter and converting the data received in this way into data formatted in a second protocol, a second relay connected to the first relay and receiving the data messages formatted in the second protocol and transmitting them in a synchronous mode to a receiver, and a limited data rate transmission channel interconnecting the two relays, wherein, since said data messages formatted in said second protocol can be of different lengths, said apparatus includes means for transmitting said data messages that can be of different lengths over said limited data rate transmission channel in an asynchronous mode.
- 2/ Apparatus according to claim 1, including a buffer memory in the second relay, interposed in a transmission path of said second relay to store received messages and then to transmit them to the receiver.
- 3/ Apparatus according to claim 2, wherein the second relay includes a decoder for receiving an instruction to retransmit a message and for modifying a determined order of retransmission or for storing a copy of a message that is to be retransmitted in the buffer memory.
- 4/ Apparatus according to claim 1, wherein the first protocol has a plurality of data rates for transmitting payload bits, the rate at which payload bits are transmitted over the limited data rate transmission channel being intermediate in value between the data rates of the first protocol.
- 5/ Apparatus according to claim 2, wherein the buffer memory is of the first-in-first-out type.

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6/ A transmission method comprising the following steps:
· receiving, in a first relay, messages formatted in
a first protocol and coming from a transmitter;

· converting the data received in this way into data
5 formatted in a second protocol;

· transmitting the data formatted in the second
protocol to a second relay connected to the first relay
by a limited data rate transmission channel; and

· transmitting, in a synchronous mode, the data
10 formatted in the second protocol from the second relay to
a receiver;

wherein said data messages formatted in said second
protocol can be of different lengths, said method
including transmitting said data messages capable of
15 having different lengths over said limited data rate
transmission channel in an asynchronous mode.

7/ A method according to claim 6, including:

· storing a plurality of received messages in a
20 buffer memory of the second relay; and

· performing said storage prior to the second relay
transmitting the messages to the receiver.

8/ A method according to claim 7, wherein:

25 · a message retransmission instruction is decoded in
the second relay;

· a copy of a message to be retransmitted is stored
in the buffer memory; and/or

· a determined retransmission order is modified.
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9/ A method according to claim 6, wherein the first
protocol has a plurality of data rates for transmitting
payload bits, the rate at which payload bits are
transmitted over the limited data rate transmission
35 channel being intermediate in value between the rates of
the first protocol.

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10/ A method according to claim 7, wherein storage is of the first-in-first-out type.

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